

Patent Details

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Documents

Abstract/Abridgement

[Document](#)

Complete Specification

[Document](#)

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Applicant / Patentee: (71)

MICHAEL MAURICE QUINLAN . 773 Eastcoast Road, Browns Bay, Auckland, New Zealand

Applicant / Patentee: (71)

PAUL GERARD QUINLAN . 461/1 Blockhouse Bay Road, Blockhouse Bay, Auckland, New Zealand

Contact : (74)

BALDWINS . Level 14, Baldwins Centre, 342 Lambton Quay, Wellington, New Zealand

Service Address :

As above

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Related Patents

No Related Patents found

Objections / Hearings

There are no current objections or hearings present

Renewal Interest

Computer Patent Annuities Limited CPA House, 11-15 Seaton Place, St Helier, Jersey
Partnership JE1 1BL, Channel Islands

Applicant / Patentee & Licensee History

No applicants nor licensees on record or public access is restricted

Inventors (72)

Quinlan, Michael Maurice

Quinlan, Paul Gerard

Your Selection Criteria

IPOL Database Search

Collection: Public

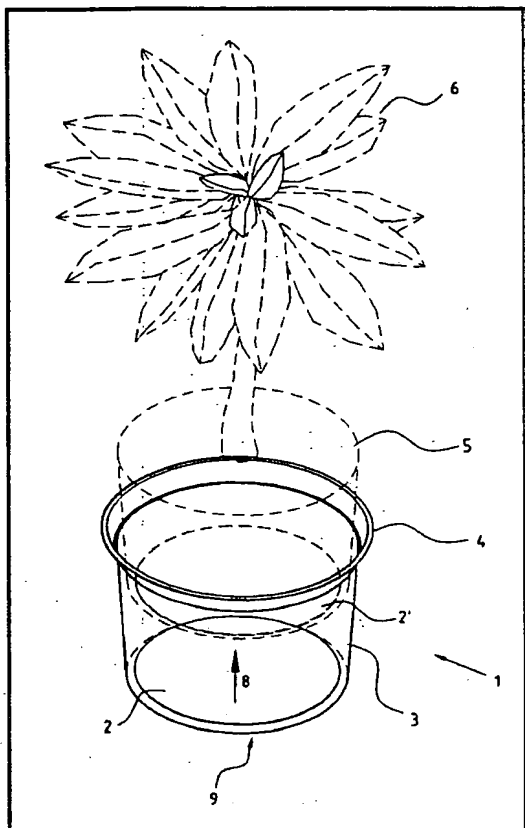
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Patent abridgement 328460



(57) Container 1 has base 2 and sidewall 3 engageable with base 2. Base 2 may be accessed through an aperture in container 1 beneath base 2 and pushed up through a top opening of container 1. A plant and soil are thus able to be elevated and carried out of the pot.

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**NEW ZEALAND
PATENTS ACT 1953
COMPLETE SPECIFICATION**

Title of Invention:

Pot plant container

Name, address and nationality of
applicant(s) as in international
application form:

MICHAEL MAURICE QUINLAN, a New Zealand citizen of 773 Eastcoast Road,
Browns Bay, Auckland, New Zealand; PAUL GERARD QUINLAN, a New Zealand
citizen of 461/1 Blockhouse Bay Road, Blockhouse Bay, Auckland, New Zealand

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N.Z. PATENT OFFICE
30 JUL 1997
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Our Ref: PZ501916

NEW ZEALAND

PATENTS ACT 1953

COMPLETE SPECIFICATION

POT PLANT CONTAINER

We, **MICHAEL MAURICE QUINLAN** a citizen of New Zealand of 773 East Coast Road, Browns Bay, Auckland, New Zealand and **PAUL GERARD QUINLAN**, a citizen of New Zealand of 461/1 Blockhouse Bay Road, Blockhouse Bay, Auckland, New Zealand hereby declare the invention, for which I pray that a patent may be granted to me and the method by which it is to be performed, to be particularly described in and by the following statement:

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SUMMARY OF THE INVENTION

Accordingly, in a first aspect, the invention consists in a plant container comprising:

- a base portion;
- a side wall portion engageable with said base portion; and
- wherein said base portion is movable with respect to said side wall portion and said container is adapted such that said base portion may be accessed through an aperture in said container beneath said base portion and pushed from beneath and pushed through the opening in the container adjacent a top of said side wall portion to carry a plant and growing medium out of the container.

Further aspects of this invention may become apparent to those skilled in the art upon reading the following description.

BRIEF DESCRIPTION OF THE DRAWINGS

The invention will now be described with reference to the drawings in which:

Figure 1: shows an elevation of one embodiment of the apparatus;

Figure 2: shows a perspective view of a further embodiment of the apparatus;

Figure 3: shows a perspective view of a seedling tray forming a further embodiment of the apparatus;

Figure 4: shows a perspective view of a yet further embodiment of the apparatus;

Figure 5: shows a cross-sectional elevation through a yet further embodiment; and

Figure 6: is a plan view of a base portion forming part of the apparatus of Figure 5.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

An embodiment of the invention is shown in Figure 1. It can be seen that the invention comprises a pot plant container 1 having a base 2 and side walls 3. This particular embodiment is in the form of a inverted truncated cone such that the side walls are substantially circular in cross-section. However, any shaped pot plant container can be utilised with the invention.

The side walls 3 have an opening adjacent a top end 4 through which the soil 5 and plant 6 are inserted and the plant 6 rises through the top 4 of the container 1. Adjacent a lower edge 7 of the side walls 3, the base 2 is engaged but also disengageable with the side walls 3 so that it can move in an upward direction as indicated by arrow 8. This may be achieved by a hole 9 or other suitable means of access to allow the disc 2 to be pushed upwardly to carry the soil 5 and plant 6 with the base 2 out the top 4 of the container 1.

The engagement between the side walls 3 and the base 2 may be simply provided by an inwardly directed flange 10. The inwardly directed flange 10 may be provided such that the opening 9 between the inner edges of the flange 10 is of smaller dimension than the base portion 2 such that the perimeter of the base portion 2 resides on the flange 10. In this way, the

plant 6 and soil 5 is supported on the base portion 2 which itself is supported within the side walls 3 and yet the base portion 2 may still be pushed in an upwardly direction for removal of the plant and soil.

In this preferred form, drainage holes 11 may be provided around the base of the container 1 and in this embodiment are provided in or adjacent the inwardly directed flange 10.

An apparatus of this type may be made from a large variety of materials including plastic, metal, wood, ceramic or other materials generally suitable for pot plant containers. Also many shapes can be accommodated provided the movable base portion is of smaller dimensions than the remainder of the pot so that the base portion is able to be lifted through the pot and out the opening at the top.

Referring to Figure 2, it can be seen that the invention may be provided in a rectangular container 12 having side walls 13 and a base portion 14. Again, the base portion 14 may overlie an aperture in the base of the container 12 so that it rests on inwardly directed flanges and is movable in an upward direction.

Turning to Figure 3, a plurality of the containers may be provided in the form of a seedling tray. Typically such seedling trays allow for a number of plants to be housed and these may be provided with individual base portions 15 each of which are individually movable to remove a particular seedling from the tray.

Figure 4 shows a perspective view of a bay or terracotta pot 20.

Again, such a pot may be provided with a large hole in the base of the pot 20 such that a base portion (not shown) can reside within the pot 20 to cover the hole or aperture and allow for access from beneath to push this base portion out of the pot with the plant. It should be noted that a mixture of materials may be used in some instances and this may be particularly useful on such pots as the clay or terracotta pots. In those instances, the base portion (not shown) may comprise a plastic disc or other material. The easy removal of the plant and base portion from the pot 20 may reduce the risk of breaking the pot in attempting plant removal for repotting.

Referring to Figure 5, a more preferred embodiment of the invention is shown in cross-sectional elevation. In this version, the container can be seen to have side walls 22, an inwardly directed flange 23 and a base portion 24 in the general arrangement as previously described. It can be seen that the base portion 24 can be provided with expanded peripheral regions 25 which, in this preferred form, are intermittently dispersed around the perimeter of the base portion 24. In this manner, the base portion 24 may sit slightly off the inwardly directed flange 23. It is preferred that these raised portions be provided on both sides of the general plane of the base portion 24 so that the base portion 24 can be placed into the container with either side of the base portion 24 facing upwardly and the base portion will sit in substantially the same manner in either case. Of course, rather than having portions which are expanded to both sides of the general plane of the base portion 24 in the same area, peripheral regions could be provided which are a step to provide a protrusion on different sides of the base portion 24 at different places around

the perimeter. The perimeter of the base portion 24 may be stepped to provide a number of feet around the perimeter to engage against the inwardly directed flange 23. These feet portion may be alternately directed to opposed sides of the base portion 24 to still provide the ability for this portion to be placed either way up in the container.

Also referring to Figure 6, drainage may be provided by apertures or recesses 26 placed either in the base portion 24 or, as this embodiment shows, about the peripheral edge of the base portion 24.

It can also be seen that the base portion 24 may be provided with tabs 27 to act with a cooperating rib or similar 28 positioned internally on the side walls 22. The rib 28 may be provided around the entire circumference if desired so as to allow the base portion 24 when provided in a substantially circular form to be placed in any rotation within the container. The tabs 27 and rib 28 may allow the tabs 27 to push past the rib 28 provided they are configured to be of slightly greater dimension than the internal circumference of the rib 28. This can help to secure the base portion 24 against the inwardly directed flange 23 while the container is empty or at other times where it might be dislodged. However, any reasonable concerted effort to move the base portion 24 can allow the tabs 27 to move past the rib 28 so that the base portion 24 may move upwardly in the manner described in the previous embodiments. It is intended that the tabs 27 and rib 28 or similar engagement means provides sufficient engagement to hold the base 24 while empty against some movement but still allow removal of the base portion 24 upon application of a reasonable force. The engagement means may comprise a variety of different forms such as inwardly directed tabs 28 around the

interior of the side wall 22 to simply engage over the edge of the base portion

24. Other forms are also possible.

Therefore, it can be seen that the invention provides a pot plant container which simplifies the removal of the plant by allowing the base portion to travel with the plant and can be simply pushed from beneath.

In addition to the ease with which this invention may allow removal of the pot plants to reduce damage to the clients, root structure or pots, the invention also allows for easier cleaning of the container. Once the base portion 24 is removed, this can be cleaned separately and the remainder of the container 1 is in the form of a tube other than the inwardly directed flange 23 and with the large aperture in the base of the container, the remainder of the container can simply be rinsed or otherwise cleaned with much easier access. Further, the removal process may be much faster than conventional methods, particularly for commercial operations performing a large volume of repotting at one time.

Where in the foregoing description reference has been made to specific components or integers of the invention having known equivalents then such equivalents are herein incorporated as if individually set forth.

Although this invention has been described by way of example and with reference to possible embodiments thereof it is to be understood that modifications or improvements may be made thereto without departing from the scope or spirit of the invention.

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WHAT WE CLAIM IS:

1. **A plant container comprising:**
 - a base portion;
 - a side wall portion engageable with said base portion; and
 - wherein said base portion is movable with respect to said side wall portion and said container is adapted such that said base portion may be accessed through an aperture in said container beneath said base portion and pushed from beneath and pushed through the opening in the container adjacent a top of said side wall portion to carry a plant and growing medium out of the container.
2. **A plant container as claimed in claim 1 wherein said engagement between said base and said side walls includes an inwardly directed flange at or adjacent a lower edge of said side walls on which said base portion may sit.**
3. **A plant container as claimed in claim 2 wherein said inwardly directed flange only extends partially across said base such that said base portion can be accessed through a portion not covered by said inwardly directed flange to allow said base portion to be pushed upwardly.**

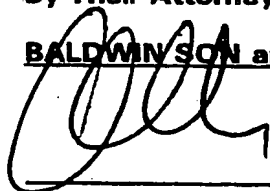
4. A plant container as claimed in claim 2 or claim 3 wherein said inwardly directed flange or base portion contains drainage holes to allow for drainage of said container.
5. A plant container as claimed in any one of claims 2 to 4 wherein said base portion includes at least one protrusion adjacent a perimeter of said base portion to contact said inwardly directed flange.
6. A plant container as claimed in claim 5 wherein said base portion includes a plurality of said protrusions on opposed sides of said base portion.
7. A plant container substantially as hereinbefore described with reference to any one of the embodiments shown in the accompanying drawings.

END OF CLAIMS

**MICHAEL MAURICE QUINLAN and
PAUL GERARD QUINLAN**

By Their Attorneys

BALDWIN SON and CAREY



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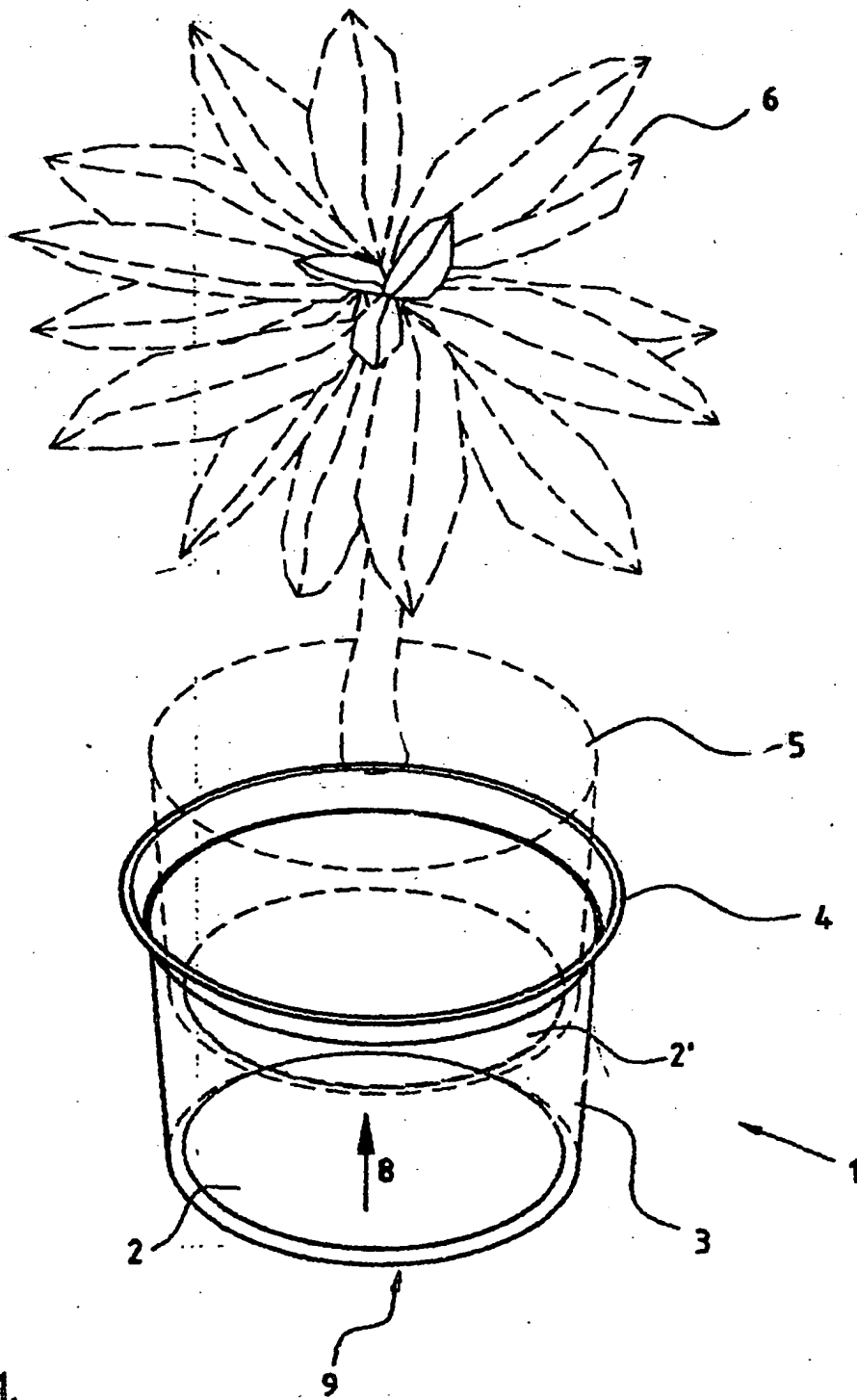


FIG.1.

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FIG.2.

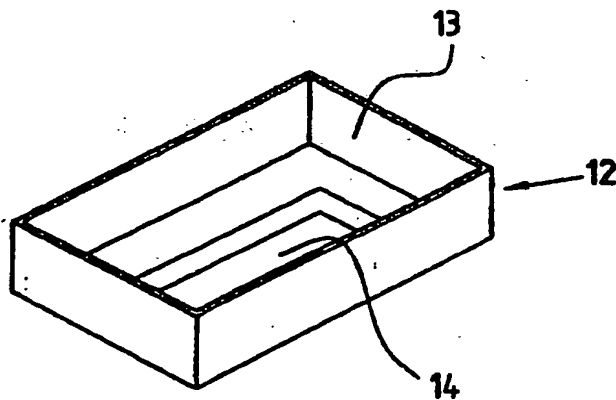


FIG.3.

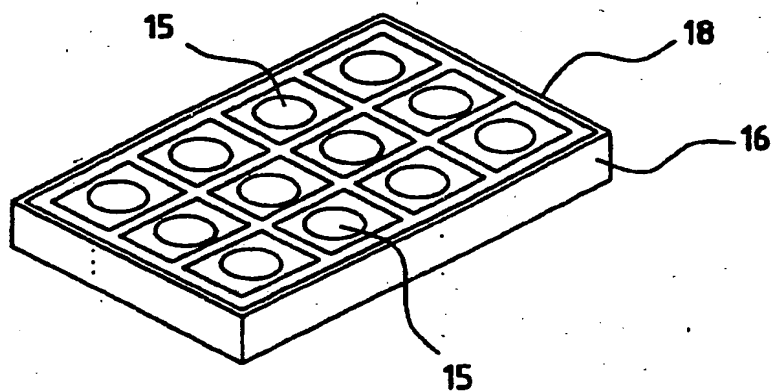
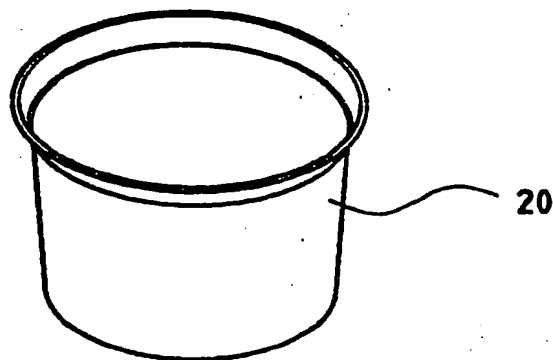


FIG.4.



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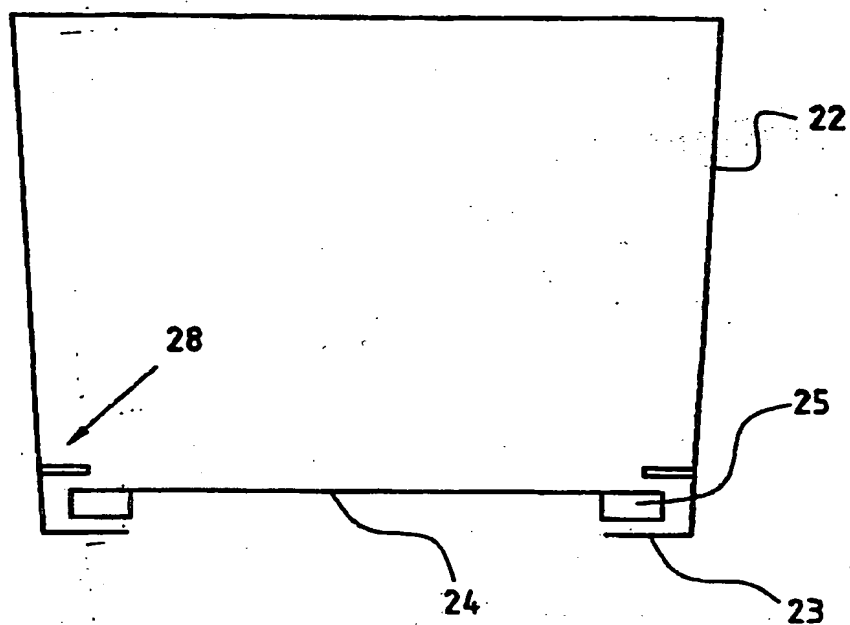


FIG. 5.

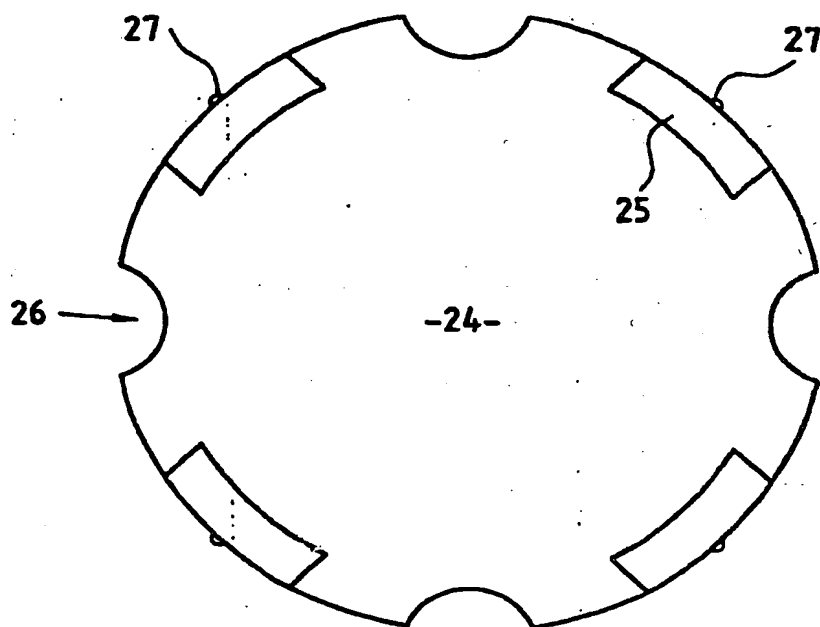


FIG. 6.

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